A TYPOGRAPHIC QUEST NUMBER FOUR

the
organization
of space

WESTVACO:

This is
a space.
It's the raw material
of graphic design—
blank paper.
We make it.

**West Virginia
Pulp and Paper**

space

is meaningless until something happens within it; when there is a 'happening,' whatever it may be, the space becomes articulated and can communicate to the viewer. Even as random a happening as the spilling of ink charges the space with activity and tells the story of the forces involved in the splash of ink upon the clean surface.

All of the visual arts are involved in the problems of articulating space. Architects and sculptors approach space as a three-dimensional problem, organizing it for human activity or human enjoyment. Painters and artists in the graphic fields work in a two-dimensional space, an unarticulated surface with length and width. All artists and designers are confronted with the same initial problem: here is a space, how do I divide it, enclose it, define it, intrude forms into it, so that the space becomes alive with the meaning and function for which it is intended? From this space must emerge the idea to be communicated, utilizing the materials available to create the most expressive forms. To the architect, the task is to enclose a space on a given sweep of land, and to divide it for human activity. The sculptor working on a block of stone or wood liberates the imprisoned form by letting space into it; or if he works with sheets or rods of material, he must project these to delineate his form and create a volume in space. The painter must compose the forms of his statement to fill the space of his canvas with color, texture, lines, mass.

The blank space of the layout pad is a challenge to the graphic designer, demanding that he utilize it for the most effective presentation of his visual-verbal forms in order to communicate clearly to the reader.

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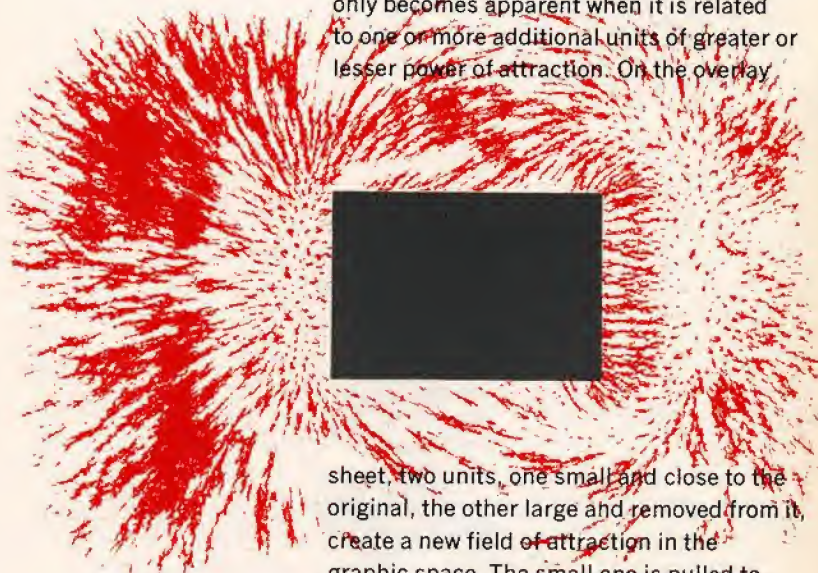erates
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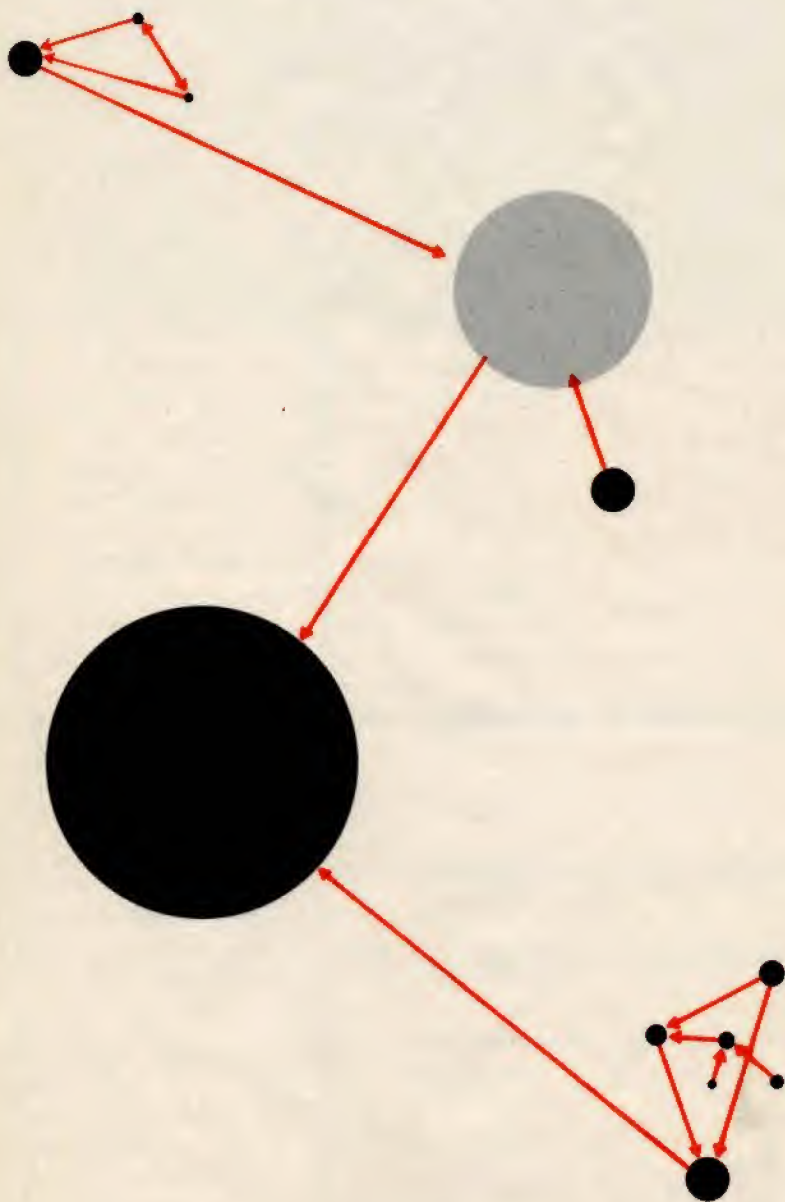ts or
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forces in space

A single form in space creates its own field of force concentrated upon itself, in the same way that a magnetic bar has an invisible field of force around it. By distributing iron filings on a sheet of paper placed over a magnet, these lines of force can be made visible, as shown below. The single unit is therefore the most powerful visual element, but like a magnet, the strength of its tension only becomes apparent when it is related to one or more additional units of greater or lesser power of attraction. On the overlay

sheet, two units, one small and close to the original, the other large and removed from it, create a new field of attraction in the graphic space. The small one is pulled to its larger, but nearer neighbor, while the two together are pulled toward the large unit below. Here a strong dynamic relationship exists between the three units. To this, two other clusters of spots are added, each with its own internal tensions, and each attracted as a unit to its more powerful neighbor. This multiplication of clusters could continue until the whole space became a mass of tensions, such as the constellations in a starry sky. But isolated elements like the lone dot at the top of the page remain unrelated to the major activity in the space. It should be obvious that the designer must try to reduce his elements to the fewest number possible, and that he will dispose them within the space to create fields of attraction between them.
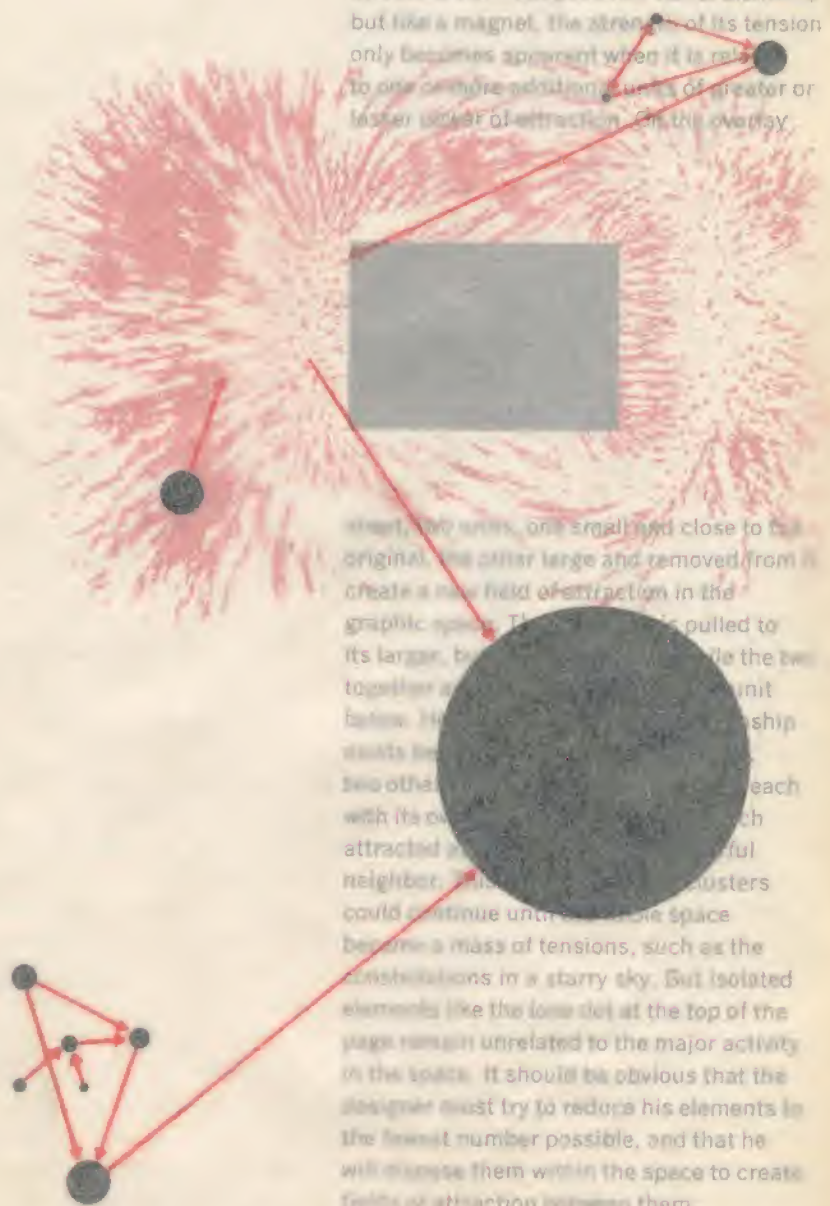
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division of space

The articulation of space by linear forms is graphically demonstrated by any Oriental character which occupies its square of space and defines it through the interplay of strokes. The signature of the nineteenth century Japanese artist Hokusai, shown at the left, is a classic example of this principle. In terms which are more contemporary, the Dutch painter Piet Mondrian sought to achieve a pure plastic art through the simple linear division of the white surface of the canvas in its vertical and horizontal dimensions with the proportions of the areas and the thickness of the lines the paramount consideration. Because of his restriction to the ninety-degree angle, his paintings have greatly influenced both the architectural facade and the graphic space, where the right angle is most natural to the material and methods of construction of a composition. In graphic design, though the black lines of the painting have disappeared, the structural formation on Mondrian's canvas still dominates, as can be seen on pages 16-19. Every problem of visual presentation begins with the establishment of the shape of the space, and the division of that space vertically and horizontally into rectangular areas into which the elements fit in pleasing proportion and alignment to each other.
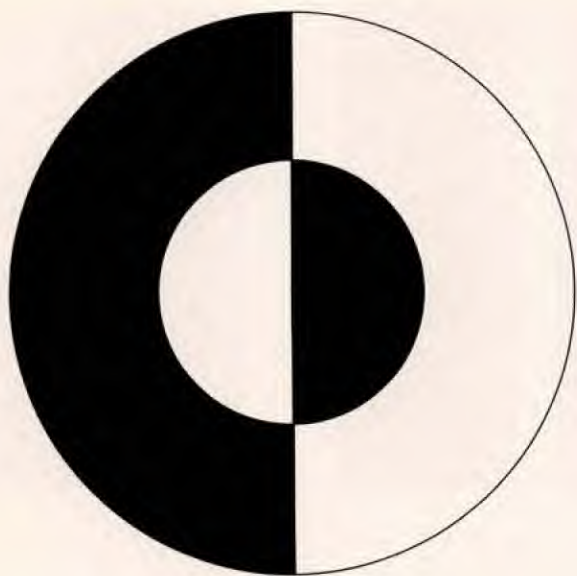
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the unity of opposites

What happens when a form existing in space creates another form which is its exact negative counterpart? Neither can exist without the other, each creates and is created by the other; there is a total mutual dependence. One example is shown at the top of the opposite page. This unity of opposites, which has been the subject of many philosophical discourses, was also graphically portrayed by the Chinese in their famous yin and yang, opposing forms which rely upon each other for their existence. No matter what interpretation is given — positive and negative, good and evil, male and female, light and darkness — the two forces remain poised in eternal, indestructible unity. But the mutual dependence of opposites does not always require a perfect balance of their forces; positive and negative elements may be interdependent even though one may dominate as we showed in our study of a letter and its related space on the preceding spread. When the internationally famous designer,

Bradbury Thompson, created the new corporate symbol for West Virginia Pulp and Paper Company, he employed the positive-negative relationship in a unity of opposites. But a new symbolic relationship also occurs in a new unity of opposites, that of paper and ink, paper positive and ink negative. This is the yin and the yang of every printing shop in the world! But of the total area of the symbol, it is obvious that the yin — the paper — dominates the composition, which only goes to indicate that the designer knew his client's business as a good designer should. Another example of positive-negative unity is the first spread of this volume of A Typographic Quest where a black page with reversed type faces a clear unprinted page. (Thirty-five years ago, Jan Tschichold, the father of modern typography, used this on the title spread of his book.) Every piece of graphic design must, consciously or unconsciously, employ this basic design principle of positive-negative relationships.

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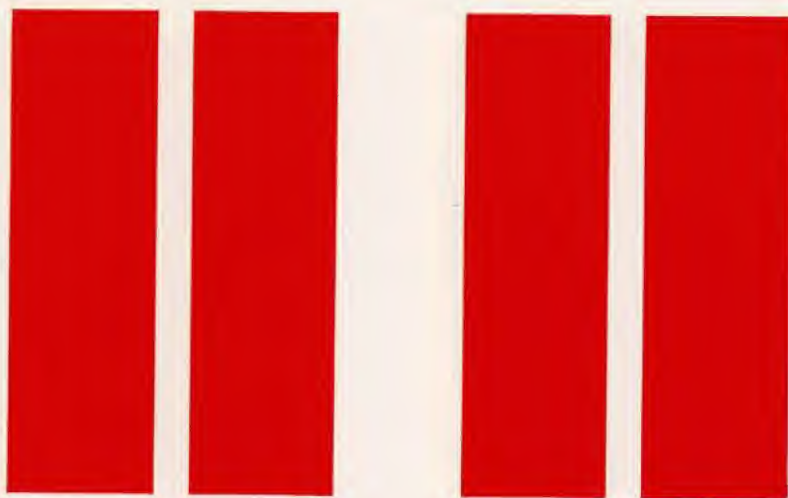of this
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the law of proximity

There is an old law of graphic design which states that those things which are close together will appear to belong together. However obvious it may seem, the law is unfortunately honored more in its neglect than in its use. Restating the law in terms of space which joins, and space which separates elements, may bring new insight to the proper use of this key principle. The two bars at the top of this page are divided by a space four picas wide; they are closer to each other than they are to the text or the sides of the page. They appear to belong together as a pair, and the space between them is enclosed.

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The same pair of bars at the top of this page have another bar placed close to each of the original ones, with no change in their original spacing. A new relationship is now set up; each of the original bars is attracted to the new bar, and the space between now becomes a visual separation of the two groups. Yet this is the same space that was charged with a force of attraction on the previous page! This demonstrates the necessity of grouping related information sufficiently close together to ensure visual cohesion while maintaining enough space between unrelated elements to keep them separated.

15

PHOTOGRAPH

TEXT

HEADING

SIGNATURE

Starting with just a few simple design elements—a photograph, a heading, a signature, and a block of text—how can these be arranged in a space using structural divisions? On the facing page, upper left, is the traditional picture-heading-copy-signature formula, carefully balanced on a central vertical axis. Next to this layout is an off-center vertical axis, and a series of arbitrary horizontal divisions, proportionately spaced, to create a dynamic visual structure. The two layouts below are again based on the traditional central axis, but with the elements grouped around it, rather than centered on it. In each of these non-traditional forms, space plays an important part in emphasizing the units, leading the eye through the communication, and so simplifying and speeding up the reader's comprehension; space plays an active role in the composition instead of being merely a passive frame. Space penetrates, performs its function of uniting and dividing, becomes charged with the tensions between the various elements. The linear surface divisions of Mondrian's paintings are no longer visible, but the structural form on which the composition is organized remains.
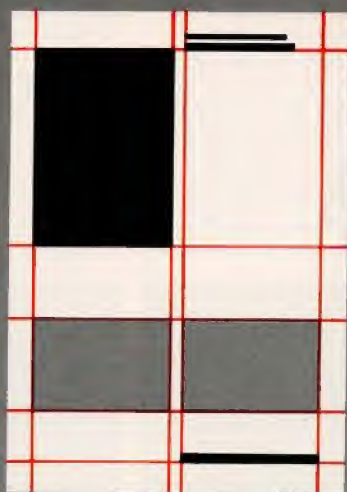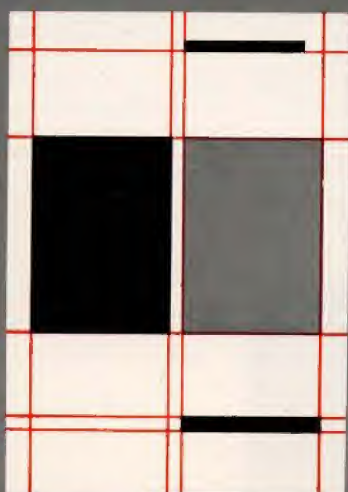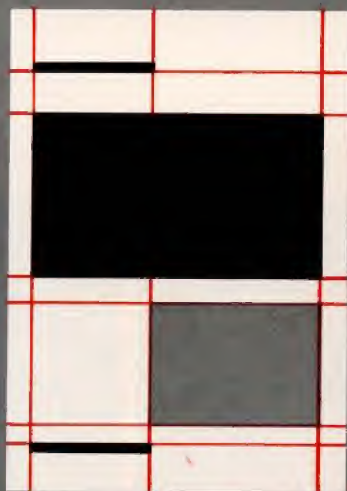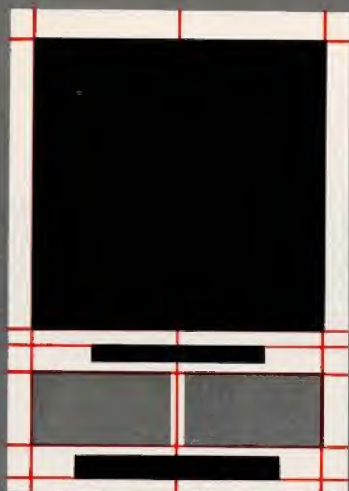
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Parts List and
Descriptions

the grid
method

The simple relationships of a few elements discussed on the previous spread permit a good deal of flexibility in the kind of structure that may be used. But when there is an unavoidably large number of elements to be organized, a more restrictive format may be necessary to avoid complete visual disorganization. The grid method meets this need. The page is divided into halves, thirds, or quarters, and a grid of uniform squares drawn up for the whole page. All of the units are then fitted to occupy a square (or multiples of the square) in a methodical pattern. From the designer's standpoint, this method ensures a consistent visual flow on each page, and from page to page. To the printer, the technical simplicity of the method will commend itself as an economical approach to complex make-up and setting problems. Widths of typesetting, or engravings, page width and depth are all maintained to uniform dimensions so

that spacing material can be standardized and costly adjustments in make-up required by multiple dimensions can be avoided. A disciplined form of design as rigid as the grid has its own built-in limitations. It requires, in the first instance, accurate planning in the preliminary stages, and the plan must be strictly adhered to; copy-fitting must be reckoned with accuracy, and the maximum of copy established to fit the required units of the grid. In the catalog page opposite, it will be noted that each copy unit is fitted into a square which conforms to the unit occupied by the photo above it. The copy may fill this grid unit, or it may fall short of it, but it must never exceed it, or the regularity of organization will be disrupted. While the grid method is most useful in catalog work and other complex design problems, the mathematical purity of the method can also result in clean, precise pages of text.

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The simple relationships of a few elements discussed on the previous spread permit a great deal of flexibility, in the kind of structure that may be used. But when there is an unavoidably large number of elements to be organized, a more restrictive format may be necessary to avoid complete visual disorganization. The grid method meets this need. The page is divided into halves, thirds, or quarters, and a grid of uniform squares drawn up for the whole page. All of the units are then fitted to occupy a square (or multiples of the square) in a methodical pattern. From the designer's standpoint, this method ensures a consistent visual flow on each page, and from page to page. To the printer, the technical similarity of the method will commend itself as an economical approach to complex make-up and setting problems. Widths of typesetting, or engravings, page width and depth are all maintained in uniform dimensions so that spacing material can be standardized and costly adjustments in make-up required by multiple dimensions can be avoided. A disciplined form of design as rigid as the grid has its own built-in limitations. It requires, in the first instance, accurate planning in the preliminary stages, and the plan must be strictly adhered to; copy fitting must be reckoned with accuracy, and the maximum of copy established to fit the required units of the grid. In the catalog page opposite, it will be noted that each copy unit is fitted into a square whi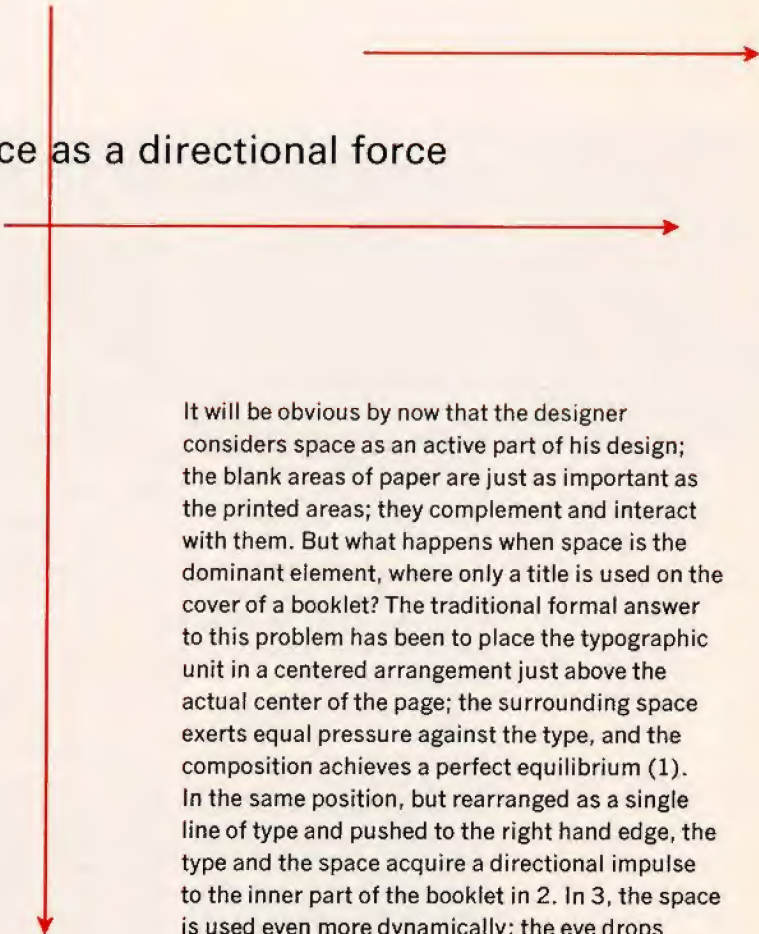ch conforms to the unit occupied by the photo above it. The copy may fill this grid unit, or it may fall short of it, but it must never exceed it, or the regularity of organization will be disrupted. While the grid method is most useful in catalog work and other complex design problems, the mathematical purity of the method can also result in clean, precise pages of text.

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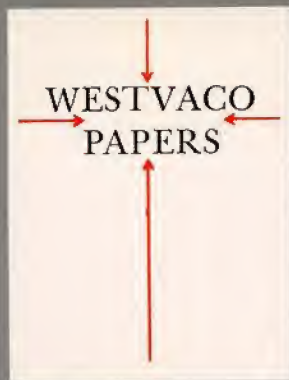
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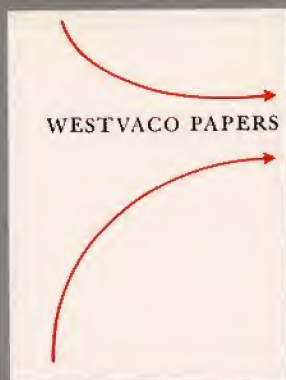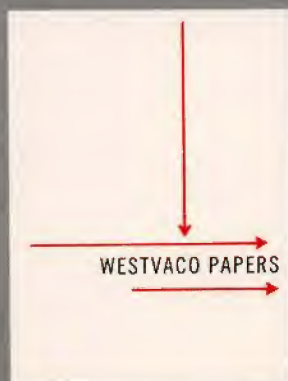
space as a directional force

It will be obvious by now that the designer considers space as an active part of his design; the blank areas of paper are just as important as the printed areas; they complement and interact with them. But what happens when space is the dominant element, where only a title is used on the cover of a booklet? The traditional formal answer to this problem has been to place the typographic unit in a centered arrangement just above the actual center of the page; the surrounding space exerts equal pressure against the type, and the composition achieves a perfect equilibrium (1). In the same position, but rearranged as a single line of type and pushed to the right hand edge, the type and the space acquire a directional impulse to the inner part of the booklet in 2. In 3, the space is used even more dynamically: the eye drops dramatically through the blank upper portion until it reaches the line of type, and is then carried to the right. In 4, the page is divided vertically in half, and the type banked against the implied division and set unjustified on the right hand side. The very opposite is done in 5, where the type is literally suspended from the top of the page, and the space below exerts its pressure upward. Finally, the type provides a strong base in 6; the eye is led down through the upper space, and then to the leading edge of the booklet.
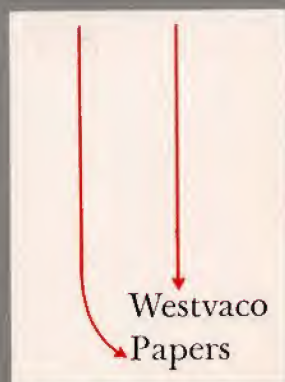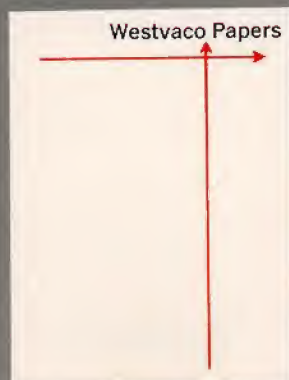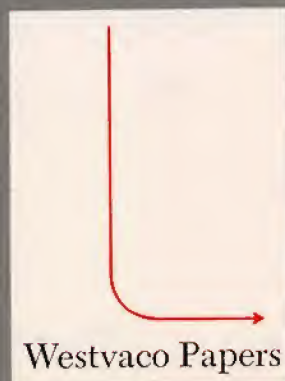
20

WESTVACO
PAPERS

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WESTVACO PAPERS

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WESTVACO PAPERS

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Westvaco
Papers

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Westvaco Papers

5

Westvaco Papers

6

our company's growth

Thus far, space has been considered in relation to black and white only. Can the introduction of color add a new dimension to graphic space? Color can be used in three different ways. 1/ It can define an area, as on the facing page. 2/ It can become a form in the visual space, and because of the intensified sensations which color stimulates, it can increase the impact of the form. 3/ Space itself can assume a color, and through openings in this colored space, glimpses of the white of the original paper space can be seen.

The layout under the overlay on the opposite page demonstrates these possibilities. As it stands, with the three bars outlined in color, the color adds nothing that could not be achieved in black. Now visualize these defined areas as solid color, and the page assumes an impact it lacked before. If, however, the overlay sheet is replaced over the design, the color becomes the background, and the bars appear as openings through which the original white space is seen, and the design reaches a maximum impact. Other colors will have less intense effects than red; cool colors like blue or green, or pale colors will tend to give more restrained and softer effects.

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space & **color**

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Up to this point, space has been considered as the geometric counterpart to geometric typographic elements, locked into the type form with its natural ninety-degree angle. But in the assembly of type proofs for engraving or offset printing, type itself, and therefore space, may take a much more flexible form. This freedom can, and often does, result in disorganization and a consequent impediment to communication. The problem of handling non-rigid forms of space and type requires discretion and careful handling, and the range of possibilities is as wide as the imagination of the designer. However, the spatial forms should be as simple as possible, and the graphic designer can ensure the simplicity of his layout by tracing the general 'map' of his spaces, and filling in the areas to expose unnecessary complexity, as shown in the sketch in the margin.

24

some of nature's packages **!**

are much too hard to open **!**

Since this volume of
A Typographic Quest is
concerned with the subject
of space, the typographic
elements have been kept as
unobtrusive as possible.
While any unpretentious type
would have served this
purpose, no type is more
devoid of mannerisms than
the modern grotesks.
Therefore Univers 55 was
chosen for all display lines,
and the text throughout is in
Linotype News Gothic, 9-point
with 3-point leading for all
pages except pages 19 and
23, and this page, where the
very narrow measures
employed made a smaller
type advisable. The size was
dropped to 8-point and the
leading to 2-point. This
page is 3-point leaded. On
page 21, Baskerville has been
used for examples 1, 2, and
4, News Gothic Condensed
for 3, News Gothic for 5, and
Caledonia for example 6.

WRITTEN
AND DESIGNED BY
CARL DAIR

fine papers

The cover of this volume is lithographed on CORONATION Litho-Gloss, 120#; The text is lithographed on CORONATION Litho-Gloss 80#, both 25 x 38 basis.

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STERLING Washproof C1S
STERLING Waxbar C1S
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VELVO Text–Dull
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VELVO Print–Dull

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CORONATION Litho–Dull
STERLING Litho–Gloss
STERLING Litho C1S
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BLENDROTO Gloss

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CLEAR SPRING Post Card
CLEAR SPRING Index

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